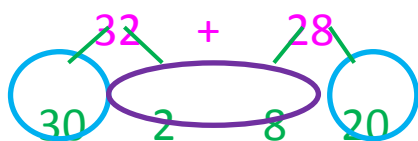


## Singapore Math Strategies

Kristi Eisele TEED 540

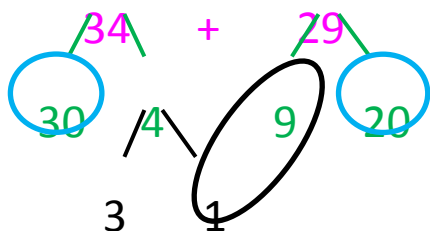
In Singapore Math, equations are presented visually. Rather than memorizing math facts, students use deductive reasoning along with addition or multiplication skills to solve equations. There is a strong emphasis on place value and mental flexibility in math, but the bulk of the focus of this curriculum is on modeling with manipulatives or pictorial representations to solve math problems.

Using **number bonds** or **branch math** is an important mental math strategy in Singapore Math.



$$30 + 10 + 20$$

$$60$$



$$30 + 10 + 20 + 3$$

$$60 + 3$$

1. Write it in expanded form

2. Ring the tens

3. Ask: do the numbers in the middle  $\neq$  more than 10?

\*Yes:

↓ You must branch

\*No:

Just add them

4. Make a ten by taking some away from one number and give it to the other

5. Add it all up. Don't forget any leftover 'ones'

The following worksheet provides practice for memorizing math facts as well as working towards truly knowing the concept behind the equation. On their paper, students write all the facts in that fact family, the meaning of the fact, the part-part-whole model, a pictorial representation, and the number line. Students gain a better understanding of what the fact actually means and what it represents. Examples of completed worksheets have also been provided.

All facts in fact family:	Meaning of fact:
Part-Part-Whole model:	Picture:
Number line:	
<div></div>	

$$3 \times 6 = 18$$

All facts in fact family:

$3 \times 6 = 18 \quad 18 = 3 \times 6$

$6 \times 3 = 18 \quad 18 = 6 \times 3$

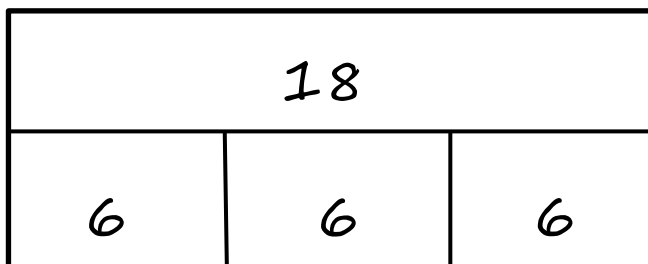
$18/6 = 3 \quad 3 = 18/6$

$18/3 = 6 \quad 6 = 18/3$

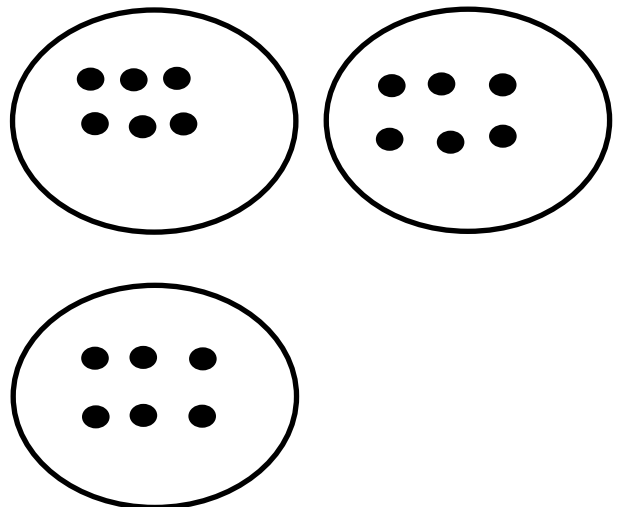
Meaning of fact:

*Make 3 groups, put 6  
in each group – the  
product will be greater  
than either factor*

Part-Part-Whole model:



Picture:



Number line:

